WHAT IS CLAIMED IS:

1. (Currently amended) A transgenic ~~Transgenic~~ mammalian non-human animal expressing a multimutated form of presenilin 1 and allowing an apoptotic phenomenon to be detected in a renewable peripheral tissue.

2. (Currently amended) The transgenic ~~Transgenic~~ animal according to claim 1, characterized in that it allows an apoptotic phenomenon to be detected in its lymphocytes.

3. (Currently amended) The transgenic ~~Transgenic~~ animal according to claim 2, characterized in that it allows an apoptotic phenomenon to be detected in its T lymphocytes.

4. (Currently amended) The transgenic ~~Transgenic~~ animal according to claim 1, characterized in that the mutations in the PS1 gene are at least three mutations selected from the group consisting of M146L, H163R, A246E, L286V, C410Y, I143T, L235P, P264L, P267S, E317G, G384A, L392V, A426P and P436S.

5. (Currently amended) The animal ~~Animal~~ according to claim 4, characterized in that the mutations are M146L, H163R, A246E, L286V, C410Y, combined with each other.

6. (Previously presented) A method for detecting compounds intended for the treatment of neurodegenerative diseases, comprising exposing said compounds to a transgenic mammalian non-human animal expressing a multimutated form of presenilin 1 and allowing an apoptotic phenomenon to be detected in a renewable peripheral tissue.

7. (Currently amended) A cell ~~Cell~~ extracted from a transgenic mammalian non-human animal expressing a multimutated form of presenilin 1 and allowing an apoptotic phenomenon to be detected in a renewable peripheral tissue.

8. (Previously presented) A method for detecting compounds intended for the treatment of neurodegenerative diseases comprising exposing said compounds to a cell extracted from a transgenic mammalian non-human animal expressing a multimutated form of presenilin 1 and allowing an apoptotic phenomenon to be detected in a renewable peripheral tissue.

9. (Currently amended) The method according to claim 6, characterized in that ~~it~~ an apoptotic phenomenon is detected in lymphocytes.

10. (Previously presented) The method according to claim 9, wherein the lymphocytes are T lymphocytes.

11. (Previously presented) The method according to claim 6, characterized in that the mutations in the PS1 gene are at least three mutations selected from the group consisting of M146L, H163R, A246E, L286V, C410Y, I143T, L235P, P264L, P267S, E317G, G384A, L392V, A426P and P436S.

12. (Previously presented) The method according to claim 11, wherein the mutations are M146L, H163R, A246E, L286V, C410Y, combined with each other.

13. (Previously presented) The cell according to claim 7 which is a lymphocyte.

14. (Previously presented) The cell according to claim 13 wherein the lymphocyte is a T lymphocyte.

15. (Previously presented) The cell according to claim 7 having at least three mutations in the PS1 gene selected from the group consisting of M146L, H163R, A246E, L286V, C410Y, I143T, L235P, P264L, P267S, E317G, G384A, L392V, A426P and P436S.

16. (Previously presented) The cell according to claim 15 wherein the mutations are M146L, H163R, A246E, L286V, C410Y, combined with each other.

17. (Currently amended) The method according to claim 8, characterized in that ~~it~~ an apoptotic phenomenon is detected in lymphocytes.

18. (Previously presented) The method according to claim 17, wherein the lymphocytes are T lymphocytes.

19. (Previously presented) The method according to claim 8, characterized in that the mutations in the PS1 gene are at least three mutations selected from the group consisting of

M146L, H163R, A246E, L286V, C410Y, I143T, L235P, P264L, P267S, E317G, G384A, L392V, A426P and P436S.

20. (Previously presented) The method according to claim 19, wherein the mutations are M146L, H163R, A246E, L286V, C410Y, combined with each other.

21. (Previously presented) The animal according to claim 1 which is a mouse.

22. (Previously presented) The method according to claim 6 wherein the neurodegenerative disease includes impairments in mechanisms for protection against free radicals.

23. (Previously presented) The method according to claim 22 wherein the neurodegenerative disease is Alzheimer's disease.

24. (Previously presented) The method according to claim 8 wherein the neurodegenerative disease includes impairments in mechanisms for protection against free radicals.

25. (Previously presented) The method according to claim 24 wherein the neurodegenerative disease is Alzheimer's disease.